AUTHOR INDEX

Abo V., 395
Abou-Donia M. B., 133
Agnati L. F., 17, 39
Akinci M. K., 169
Aloyo V. J., 355
Altiok N., 99
Amaducci L., 81
Amalric M., 123
Anctil M., 465
Anderson D. K., 377
Angelucci L., 53
Annaert W. G., 573
Arnaboldi R., 61
Aunis D., 545

Balázs R., 235
Barkai A. I., 321
Baudry M., 287
Baunez C., 123
Becker T., 253
Belcourt A., 183
Belluardo N., 367
Ben-Ari Y., 327
Benzi G., 61
Bernard A., 327
Biagini G., 17
Boeckh C., 385
Bonsi P., 493
Bousquet P., 183
Bricca G., 183

Calvo D., 395
Camilli F., 23
Canonne-Hergaux F., 545
Carvalho A. P., 483
Castillo-Melendez M., 221
Cella S. G., 5
Chadi G., 39
Chen J. F., 355
Cheramy A., 145
Chikuma T., 349
Cintra A., 39
Clementi F., 69
Cocchi D., 5
Condorelli D. F., 367
Cooper J. R., 345
Court J. A., 69
Cowburn R. F., 73
Cussó R., 175

Dählstrom A., 27
Dajas F., 395
Dally J. J., 339
De Barry J., 253
De Gennaro Colona V., 5
De Potter W. P., 573
De Pouplana L. R., 327
DeKloet E. R., 39
Dell'Albani P., 367
Deng Y., 475
Desce J. M., 145
Dodd P. R., 203
Domino E. F., 155
Dontenwill M., 183
Dostert P., 475
Duran M., 193

Earley B., 243, 555
Edlund C., 35, 295
Elliott J. M., 537
Emre M., 583
Enomoto R., 273

Farooqui A. A., 377
Ferhat L., 327
Fischer W., 47
Flanigan T. P., 537
Forleo P., 81
Frandsen A., 303
Frasoldati A., 17
Fredholm B. B., 99
Frey P., 583
Friedman M., 133
Fukuda H., 567
Fuxe K., 17, 39

Garriga J., 175
Gebicke-Härter P., 385
Ghigini B., 61
Giorgi M., 493
Giovannini M. G., 23
Giuffrida-Stella A. M., 367
Giulian D., 227
Glowinski J., 145
Godeheu G., 145
Gombos G., 253
Gonçalves P. P., 483
Gorini A., 61
Grahame-Smith D. G., 455

Greenfield S. A., 339
Greney H., 183
Guan Z. Z., 295
Gustafsson J. Å., 39

Hack N., 235
Hamano S., 403
Hanaoka K., 349
Heim C., 161
Hen R., 503
Herring P. L., 583
Hirayama K., 309
Hirouchi M., 451
Horrocks L. A., 377
Hungund B. L., 321

Ichida T., 451
Irvin N., 287
Ishii Y., 349
Israël M., 103
Itano Y., 419

Jacob W., 573
Jarrott B., 221
Jiang X., 367
Johnston J., 73
Johnston G. A. R., 169
Joliot A., 103

Kabuto H., 273
Kapatos G., 309
Kato T., 349
Keenan C., 227
Kelly P. H., 583
Khrestchatisky M., 327
Kitamura Y., 419
Klinguer C., 433
Kocha T., 349
Kristensson K., 35
Kuriyama K., 451

Lannfelt L., 73
Lawrence A. J., 221
Leara B., 227
Leonard B. E., 243, 555
Lesbats B., 103
Leslie R. A., 455, 537
Li J., 227

Lin L., 321
Lindberg J., 39
Llona I., 573
Locatelli V., 5
Lowe D. A., 573
Lowenstein P. R., 455

MacGregor D.P., 413
Malanowski J., 583
Maruyama W., 475
Matsui F., 425
McAllister K. H., 583
McRae A., 27
Medina J., 395
Melzacka M., 161
Mendelsohn F. A. O., 413
Metsis M., 11
Meyer D. K., 385
Möller A., 39
Moorman J. M., 455
Mori A., 273
Morita K., 403
Morris C., 69
Mortilla M., 81
Mudò G., 367
Müller E. E., 5
Mundula A., 23
Murone C., 413

Nacmias B., 81
Naoi M., 475
Narihara R., 451
Neijt H. C., 583
Newberry N. R., 537
Nieoullon A., 123
Nishida A., 567
Nishikawa K., 39
Nomura Y., 419
Nordberg A., 93

O'Connell A., 243, 555
O'Neill C., 73
Ogita K., 111, 263, 273
Ohta S., 475
Oitzl M., 39
Oka M., 403
Olenik C., 385
Olson L., 1
Oohira A., 425
Ouagazzal A., 123

Paggi P., 493
Palmer A. M., 441
Pani A. K., 465
Parenti M., 5
Pepeu G., 23
Peroutka S. J., 533
Perry E., 69
Piacentini S., 81

Qin Z-H., 355

Reagan K. E., 133
Reiter C. T., 441
Reynolds D. J. M., 455
Roberts E., 451
Rossi F., 85
Rubboli F., 69
Rüdeberg C., 583

Sala C., 69
Samochocki M., 193
Sasuga S., 475
Sato H., 567
Saudou F., 503
Schmidt-Kastner R., 161
Schousboe A., 303
Scott H. L., 203
Shimizu M., 567
Sieklucka M., 161
Silveira R., 395
Sindelar P., 295
Söderberg M., 35, 295
Sontag K-H., 161
Sorbi S., 81
Squitti R., 493
Standley S., 287
Strata P., 85
Strosznajder J., 193
Stutzmann J., 183
Sust M., 175
Synguelakis M., 103

Takahashi T., 475
Tanaka A., 349
Theodoridu A., 385
Timmusk T., 11
Tinner B., 39
Toschi G., 493
Trifilieff E., 433

Urwyler S., 583

Villa R. F., 61

Watanabe E., 425
Weiner N., 161
Weiss B., 355
Wells K., 377
Wesemann W., 161
Westphalen R. I., 203
White T. G., 583
Wilmarth K. R., 133
Winblad B., 73
Wolfman C., 395

Xu X., 155

Yamawaki S., 567
Yoneda Y., 111, 273, 263

Zetterström T., 537
Zheng Z., 321
Ziefer P., 385
Zoltay G., 345
Zwiller J., 545

SUBJECT INDEX

1-methyl-4-phenylpyridinium (MPP+) - and cell death, 419
2(N)-methyl-6,7-dihydroxyisoquinolinium ions - inhibits type A MAO, 475
acetylcholine - accumulation and release, 103
- role of 16kDa protein in release, 103
acetylcholinesterase - release regulated by dopamine, 339
ACPD-sensitive glutamate binding sites, 253
acrylamide - effect on kinase-mediated phosphorylation of neurofilament, 133
adenosine A_{2A} receptors - interaction with bradykinin and interleukin receptors, 99
- in astroglioma cells, 99
adenosine transport - in a synaptosomal preparation, 221
adrenal medullary cell - tyrosine hydroxylase, 403
aged rats - effect of NGF on memory, 47
aging - effect on bFGF and steroid receptors, 39
- growth hormone neuroregulation, 5
- in hypothalamus-pituitary-adrenocortical axis, 53
- influence of isoprenoids, 35
- nicotinic receptors, 93
- plasticity, 85
Alzheimer's disease - fatty acid composition of cardiolipin in brain, 295
- infusion of NGF, 2
- molecular genetics, 81
- processing of APP, 73
Alzheimer's type dementia, 203
AMPA binding sites - in synaptosomal and microsomal fractions, 287
AMPA binding - in mouse forebrain, 169
- sex differences in acute swim stress, 169
AMPA receptors - gene expression, 367
AMPA receptors - involvement in epilepsy, 367
AMPA - trophic effect on granule cells, 235
amyloid precursor protein - see APP
amyloidosis - in Alzheimer's disease, 73
angiotensin converting enzyme - in post mortem brain, 413
angiotensin receptors - in post mortem brain, 413
anions - effect on uptake and release of GABA, 483
APP gene, 81
APP670/671 mutation - in Alzheimer's disease, 73
arachidonic acid turnover - reduced by glutamate, 193
- stimulated by serotonin, 193
aspartate efflux - comparison of preaccumulated with endogenous aspartate, 441
- comparison of preaccumulated with endogenous glutamate, 441
astroblasts - expression of tropomyosin expression, 545
astrocytes - effect of deprenyl, 17
- survival regulated by cytotoxins and cytokines, 227
astroglial cells - proenkephalin gene, 385
astroglioma cells - adenosine$_{2A}$ receptors, 99
ATPase activities - in synaptosomes, 61

basic fibroblast growth factor - see bFGF
BDNF mRNA's - effect of kainate, 13
BDNF - gene regulation in hippocampus, 11
- mRNA, 11
benzodiazepine receptor - effect of thyroxine, 443
bFGF immunoreactivity - in aging, 39
bFGF - immunoreactivity enhanced by derenyl, 17
- regulation of tropomyosin expression, 545
bradykinin receptors - in astroglioma cells, 99
- interaction with adenosine $_{2A}$ receptors, 99
brain-derived neurotrophic factor - see BDNF

calcium - effect of magnesium on intracellular concentrations, 303
calcium-dependent kinase - influenced by acrylamide, 133

calmodulin-dependent kinase - influenced by acrylamide, 133
cAMP - regulation of tropomyosin expression, 545
cardiolipin - fatty acid composition, 295
- in brain areas of Alzheimer's patients, 295
catecholamines - synthesis in a Cnidarian, 465
cerebellum - distribution of metabotropic glutamate receptors, 253
cGMP - effect of magnesium, 303
cholecystokinin - co-stored with dopamine, 573
chromaffin granules - tyrosine hydroxylase, 403
clonidine binding, 183
coexistence - of dopamine and cholecystokinin, 573
CREB - binding to DNA, 263
3':5'cyclic nucleotide phosphodiesterases - in sympathetic ganglion, 493
cytokines - regulate survival of astrocytes and neurones, 227
- released from phagocytic microglia, 227
cytotoxins - regulate survival of astrocytes and neurones, 227
- released from phagocytic microglia, 227

D_1 and D_2 dopamine receptor mRNAs - influence of fluphenazine-N-mustard, 355
dementia - excitotoxic mechanisms, 203
- nicotinic receptors, 93
deprenyl - activation of astrocytes, 17
- in neuroprotection, 17
- influences bFGF, 17
development - of dopamine neurones in culture, 309
DM-20 - proteolipid, 433
dopamine neurones - in culture, 309
dopamine synthesis - presynaptic control, 145
dopamine - acts presynaptically to open potassium channels, 345
- co-stored with cholecystokinin, 573
- interaction with glutamate, 123
dopaminergic fibres - regrowth caused by catecholamines, 27
dopaminergic system in nigra - regulates acetylcholinesterase release, 339

eicosanoids - involved in opening of potassium channels, 345
epilepsy - AMPA receptors, 367
epileptic mice - ionotropic glutamate receptors affected, 273
ethanol - effects phospholipase A_2 activity, 321
- influence on glycogen, glucose and phosphorylated sugars, 175
excitatory amino acids - release controled by dopamine, 145
- release from striatal synaptosomes, 145
- release of endogenous and exogenous, 443
excitotoxic mechanisms - in pathogenesis of dementia, 203
excitotoxicity of glutamate, 377

fatty acid composition - of cardiolopin, 295
fluphenazine-N-mustard - differentailly regulates opioid receptor mRNAs, 355
- differentially regulates D_1 and D_2 dopamine receptor mRNAs, 355

GABA release - effect of anions, 483
GABA uptake - effect of anions, 483
GABA - acts presynaptically to open potassium channels, 345
- uptake and release, 483
GABA = g-aminobutyric acid
$GABA_A$ receptor - effect of thyroxine, 443
ganglioside GM1 - reduces ethanol induced phospholipase A_2 activity, 321
glioma cells - release and accumulation of acetylcholine, 103
glucocorticoid receptors - in aging, 39
glucose and phosphorylated sugars - effect of ethanol, 175
glutamate and analogs - effect on spinal cord cultures, 377
glutamate efflux - comparison with efflux of preaccumulated aspartate, 441
glutamate receptor mRNAs, 367
glutamate receptors - in mouse forebrain, 169
- interact with serotonin receptors, 193

- ionotropic-type altered in cerebellum in epileptic mice, 273
- properties, 206
glutamate uptake, 208
glutamate - excitotoxicity, 377
- interaction with dopamine, 123
- reduces arachidonic acid turnover, 193
glutamate-associating-proteins - partial purification, 111
glutamate/AMPA receptors - in synaptosomal and microsomal fractions, 287
glycogen distribution - effect of ethanol, 175
granule cells - AMPA acts as a trophic factor, 235
G-protein-coupled 5-HT receptors, 505

hippocampus - binding of AP1 to DNA, 263
5-HT receptors - coupled to G-proteins, 505
- evolution, 533
- gated to ion channels, 522
- regulation and function, 537
- role in man, 539
human brain - distribution of nicotinic receptor subunits, 69
hybrid NG108-15 cells - release and accumulation of acetylcholine, 103
5-hydroxytryptamine receptors, 533
5-hydroxytryptamine - receptor subtypes in vertebrates and invertebrates, 503
5-hydroxytryptamine = serotonin = 5-HT
hypothalamus - development of dopamine neurones in culture, 309
hypothalamus-pituitary-adrenocortical axis - in aging and involvement of NGF, 53
hypoxia - age-related changes in synaptosomal ATPase activities, 61
- influence on synaptosomal ATPase activities, 61
- oligemic hypoxia, 161

idazoxan binding, 183
imidazoline binding sites - human brain, 183
imidozoline binding protein(s) - solubilisation with CHAPS, 183
imipramine - stimulates phospholipase C, 567
immunological identification - of proteoglycan fragemts of neurocan, 425
indoleamines - synthesis in a Cnidarian, 465
interleukin receptors - in astroglioma cells, 99
- interaction with adenosine $_{2A}$ receptors, 99
invertebrates - serotonin receptors, 503
ionic factors - tyrosine hydroxylase, 403
ionotropic glutamate receptors - affected in epileptic mice, 273
isoprenoids - in aging and neurodegeneration, 35
isoquinolines - effect on type A MAO, 475

kainate binding - in mouse forebrain, 169
- sex differences in acute swim stress, 169
kainate - effect on BDNF mRNA's, 13

lipid peroxidation - in oligemic hypoxia, 161
locomotory activity - influenced by phencylidine and MK-801, 155

magnesium - effect on intracellular calcium, 303
- effect on cGMP, 303
- effect on NMDA mediated toxicity, 303
MAP2d - a MAP2 splice variant, 327
- regional and developmental expression, 329
MAPs = microtubule-associated proteins
membrane anisotropy - in oligemic hypoxia, 161
memory impairments - reversed in aged rats by NGF, 47
mesencephalon - development of dopamine neurones in culture, 309
metabotropic glutamate receptors - in developing cerebellum, 253
microglia - release cytokines and cytotoxins, 227
microsomes - binding of ^{3}H-AMPA, 287
MK-801 - locomotor stimulant, 155
monoamine oxidase - efffect of isoquinolines, 475

- inhibition by 2(N)-methyl-6,7-dihydroxyisoquinolinium ions, 475
monoamines - synthesis in a Cnidarian, 465
mRNAs - for AMPA receptors, 367
muscarinic M_1 receptors - located presynaptically in vagal afferents, 455
muscarinic receptors - effect of trimethyltin, 555
- in ferret brainstem vagal nuclei, 455
- influenced by trimethyltin intoxication, 243
mutations - in Alzheimer's disease, 73
Myc - binding to DNA, 263

nerve growth factor - see NGF
neuroblastoma cells - release and accumulation of acteylcholine, 103
neurocan - brain chondroitin sulphate proteoglycan, 425
neurodegeneration - influence of isoprenoids, 35
neuroendocrine aging, 5
neurofilament proteins - influence of acrylamide, 133
neurones - survival regulated by cytokines and cytotoxins, 227
neuroprotection - caused by deprenyl, 17
- caused by tacrine, 555
neurotoxin DSP4 - effect on noradrenergic neurones, 395
neurotrophins - in clinical disease, 1
NGF - in aging of hypothalamus-pituitary-adrenocortical axis, 53
- in Alzheimer's disease, 2
- medullary graphs in parkinsonism, 1
- reverses memory impairments in aged rats, 47
nicotinic receptor - subunits in human brain, 69
- in aging and dementia, 93
NMDA anatagonist - SDZ EAA 494, 583
NMDA mediated toxicity - influence of magnesium, 303
NMDA receptor - influenced by modulators, 303
NMDA - displaces ^{3}H-glutamate from associating proteins, 111
NMDA - enhances binding of AP1 to DNA in hippocampus, 263
noradrenergic neurones - recovery following treatment with neurotoxin DSP4, 395
N-methyl-D-aspartate - see NMDA

oligemic hypoxia - membrane anisotropy and lipid peroxidation, 161
olivocerebellar system - plasticity, 85
opioid receptors - influence of fluphenazine-N-mustard, 355

parkinsonism - influence of NGF on medullary graphs, 1
PC12 cells - inhibition of cell death caused by MPP^+, 419
peptidylglycine-a-amidating monooxygenase - in hypothalamus, 349
peroxidation of lipids, 161
phagocytic microglia, 227
phencyclidine receptors - influenced by trimethyltin intoxication, 243
phencyclidine - locomotor stimulant, 155
phosphodiesterases - in sympathetic ganglion, 493
phospholipase A_2 activity - ethanol induced effects are reduced by ganglioside GM1, 321
- induced by ethanol, 321
phospholipase C - stimulated by imipramine, 567
phosphorylation - increased by acrylamide, 133
PKA - interaction with PKC, 385
PKC - interaction with PKA, 385
plasticity - in adulthood and aging, 85
PLP - proteolipid, 433
polyclonal immune response - to purified proteolipds, 433
post mortem brain - angiotensin receptors and converting enzyme, 413
potassium channel - opened in synaptosomes by dopamine and GABA, 345
potassium channels in synaptosomes - involvement of eicosanoids, 345
presynaptic - control of dopamine synthesis, 145
proenkephalin gene - in astroglial cells, 385
- interactions of protein kinase A and C, 385
protein kinase A and C - effects on proenkephalin gene, 385
proteoglycan fragments of neurocan - immunological identification, 425

proteoglycan fragments - of neurocan, 425
proteolipids - polyclonal immune response to purified PLP and DM-20, 433
Purkinje cell synapse - plasticity, 85

rauwolscine binding, 183
regrowth of dopaminergic fibres - implantation of transmitter-loaded microspheres, 27
release - of acetylcholinesterase, 339

SDZ EAA 494 - a competitive NMDA antagonist, 583
serotonin receptors in invertebrates, 520
serotonin receptors - interact with glutamate receptors, 193
serotonin - stimulates arachidonic acid turnover, 193
somatotrophic function - in neuroendocrine aging, 5
steroid receptors - in aging, 39
striatum - interaction between dopamine and glutamate, 123
substantia nigra - release of acetylcholinesterase regulated by dopamine, 339
sympathetic ganglion - phosphodiesterases, 493
synaptic plasma membranes - uptake and release of GABA, 483
synaptosomal ATPase activities, 61
synaptosomes - binding of ^{3}H-AMPA, 287
- release of excitatory amino acids, 145
synaptosomal ATPase activities - hypoxia effects are age-related, 61

tacrine - neuroprotective effect, 555
thyroxine - effect on GABA receptors, 443
- inhibitory action on benzodiazepine site, 443
transcription factor activator protein-1 (AP1) - binding enhanced by NMDA, 263
transmitter-loaded microspheres - implantation causes regrowth of dopamine fibres, 27
trimethyltin intoxication - influences muscarinic and phencyclidine receptors, 243
trimethyltin - action on memory and muscarinic receptors, 555
- effects antagonised by tacrine, 555
tropomyosin expression - in astroblasts, 545
- regulated by bFGF and cAMP, 545
tyrosine hydroxylase - adrenal medullary cell, 403
- in chromaffin granules, 403
- ionic factors, 403

vagal afferents - localisation of cholinergic receptors, 455
vagal nuclei - muscarinic receptors, 455